

WHAT IS CLAIMED IS:

5

1. A front-and-back electrically
conductive substrate comprising:

10 a plurality of posts composed of a material
that can be anisotropically etched and having an
electrically conductive portion that has at least a
first surface and a second surface that communicate
with each other; and

15 an insulative substrate that supports the
plurality of posts.

20 2. The front-and-back electrically
conductive substrate as claimed in claim 1, wherein
the electrically conductive portion comprises an
electrically conductive film covering a front
surface of the posts.

25

30 3. The front-and-back electrically
conductive substrate as claimed in claim 1, wherein:
the insulative substrate is composed of
either ceramic, glass or an organic resin; and
the electrically conductive portion is a
metal having a melting temperature higher than
either a baking temperature or a melting temperature
35 of an insulation used in the insulative substrate.

4. The front-and-back electrically
conductive substrate as claimed in claim 1, wherein
5 a pad for mounting a semiconductor component is
formed on at least the first surface of the front-
and-back electrically conductive substrate.

10

5. The front-and-back electrically
conductive substrate as claimed in claim 1, wherein
a thin film composed of a wiring pattern layer and
15 an insulation layer is formed on at least the first
surface of the front-and-back electrically
conductive substrate.

20

6. The front-and-back electrically
conductive substrate as claimed in claim 1, wherein
the insulation material of the insulative substrate
25 includes a material that absorbs a difference in a
coefficient of thermal expansion between the
insulation material and mounted semiconductor
components.

30

7. A front-and-back electrically
conductive substrate comprising:
35 a first post composed of a material that
can be anisotropically etched and having an
electrically conductive portion that has at least a

first surface and a second surface that communicate with each other;

5 a second post disposed so as to surround the first post at a distance and having an electrically conductive portion coupled to a ground; and

an insulation material that supports the first post and the second post.

10

8. The front-and-back electrically conductive substrate as claimed in claim 7, further comprising a thin film having a signal pattern layer and a ground layer, the electrically conductive portion of the first post being electrically connected to the signal pattern layer, the electrically conductive portion of the second post being electrically connected to the ground layer.

25 9. The front-and-back electrically conductive substrate as claimed in claim 8, wherein the second post is positioned outside a region defined by a predetermined distance from the first post.

30

10. A method for manufacturing a front-and-back electrically conductive substrate, the method comprising the steps of:

forming, by a process of anisotropic

etching, a plurality of posts having an electrically conductive portion that has at least a first surface and a second surface that communicate with each other; and

5 filling space between the plurality of posts with an insulating material.

10

11. The method for manufacturing a front-and-back electrically conductive substrate as claimed in claim 10, the method further comprising a step of polishing the first and second surfaces
15 after the step of filling space between the plurality of posts with an insulating material.

20

12. The method for manufacturing the front-and-back electrically conductive substrate as claimed in claim 10, wherein the anisotropic etching process leaves a portion of the etching material
25 disposed so as to couple the plurality of posts to each other.

30

13. A multilayer printed wiring board comprising a plurality of inner layer boards stacked atop each other, each of the inner layer boards comprising:

35 a plurality of posts composed of a material that can be anisotropically etched and having an electrically conductive portion that has at least a

first surface and a second surface that communicate with each other; and

an insulative substrate that supports the plurality of posts.

5

14. A printed board unit comprising:

10 a front-and-back electrically conductive substrate; and

a semiconductor component mounted on the front-and-back electrically conductive substrate, the front-and-back electrically conductive

15 substrate comprising:

a plurality of posts composed of a material that can be anisotropically etched and having an electrically conductive portion that has at least a first surface and a second surface that communicate with each other; and

20

an insulative substrate that supports the plurality of posts.

25

15. A front-and-back electrically conductive substrate comprising:

30 a plurality of posts composed of a material that can be anisotropically etched and having an electrically conductive portion that has at least a first surface and a second surface that communicate with each other;

35 an insulative substrate that supports the plurality of posts; and

an electrically conductive film that surrounds the posts.

5 16. The front-and-back electrically
conductive substrate as claimed in claim 15, wherein
the electrically conductive film that surrounds the
posts comprises an electrically conductive metal
having a baking temperature higher than that of the
10 insulation material.